AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: CQ10218

U.S. Appln. No.: 10/785,199

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (currently amended): A method of synthesizing speech using discourse function

level prosodic features comprising the steps of:

determining a theory of discourse analysis from a plurality of theories of discourse

analysis;

determining input text;

determining discourse functions in the input text, the discourse functions being

determined based on a mapping between basic discourse constituents of the determined theory of

discourse analysis and a plurality of discourse functions;

determining a model of discourse function level prosodic features; and

determining adjusted synthesized speech output based on the discourse functions in the

input text, [[and]] the model of discourse function level prosodic features, and the input text.

(previously presented): The method of claim 1, wherein the discourse functions

are determined based on the determined theory of discourse analysis.

3. (original): The method of claim 2, in which the theory of discourse analysis is at

least one of: the Linguistic Discourse Model, the Unified Linguistic Discourse Model, Rhetorical

Structures Theory, Discourse Structure Theory and Structured Discourse Representation Theory.

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 (previously presented): The method of claim 1, wherein the input text is dvnamically generated by another application.

 (currently amended): The method of claim 1, wherein determining the adjusted synthesized speech output further comprises the steps of:

determining a synthesized speech output based on the input text;

determining discourse function level prosodic feature adjustments; and

determining the adjusted synthesized speech output based on the synthesized speech output and the discourse level prosodic feature adjustments.

- (previously presented): The method of claim 1, wherein the model of discourse function level prosodic features is a predictive model of discourse functions.
- (original): The method of claim 6, in which the predictive models are determined based on at least one of: machine learning and rules.
- (original): The method of claim 1, in which the prosodic features occur in at least one of a location: preceding, within and following the associated discourse function.
- (original): The method of claim 1, in which the prosodic features are encoded within a prosodic feature vector.

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 (original): The method of claim 9, in which the prosodic feature vector is a multimodal feature vector.

- (previously presented): The method of claim 1, in which the discourse functions include an intra-sentential discourse function.
- (previously presented): The method of claim 1, in which the discourse functions include an inter-sentential discourse function.
- (currently amended): A method of synthesizing speech using discourse function level prosodic features comprising the steps of:

determining input text;

determining discourse functions in the input text based on a contextually aware theory of discourse analysis using a mapping between basic discourse constituents of the contextually aware theory of discourse analysis and a plurality of discourse functions;

determining a model of discourse function level prosodic features; and

determining adjusted synthesized speech output based on the discourse functions, [[and]]
the model of discourse function level prosodic features, and the input text.

 (original): The method of claim 13, in which the context is at least one of: semantic, pragmatic, and syntactic context.

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15. (currently amended): A system for synthesizing speech using discourse function

level prosodic features comprising:

an input/output circuit for retrieving input text; and

a processor that determines a theory of discourse analysis from a plurality of theories of

discourse analysis based on the speech to be synthesized; determines discourse functions in the

input text based on a mapping between basic discourse constituents of the determined theory of

discourse analysis and a plurality of discourse functions; determines a model of discourse

function level prosodic features; and which determines adjusted synthesized speech output based

on the discourse functions, [[and]] the model of discourse function level prosodic features, and

the input text.

16. (previously presented): The system of claim 15, wherein the discourse functions

are determined based on the theory of discourse analysis.

17. (original): The system of claim 16, in which the theory of discourse analysis is at

least one of: the Linguistic Discourse Model, the Unified Linguistic Discourse Model, Rhetorical

Structures Theory, Discourse Structure Theory and Structured Discourse Representation Theory.

18. (previously presented): The system of claim 15, wherein the input text is

generated by another application.

19. (previously presented): The system of claim 15, wherein the processor determines

a synthesized speech output based on the input text; determines discourse function level prosodic

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feature adjustments; and determines adjusted synthesized speech output based on the synthesized speech output and the discourse level prosodic feature adjustments.

- (original): The system of claim 15, wherein the model of discourse function level prosodic features is a predictive model of discourse functions.
- 21. (original): The system of claim 20, in which the predictive models are determined based on at least one of: machine learning and rules.
- 22. (original): The system of claim 15, in which the prosodic features occur in at least one of a location: preceding, within and following the associated discourse function.
- (original): The system of claim 15, in which the prosodic features are encoded within a prosodic feature vector.
- (original): The system of claim 23, in which the prosodic feature vector is a multimodal feature vector.
- (original): The system of claim 15, in which the discourse function is an intrasentential discourse function.
- (original): The system of claim 15, in which the discourse function is an intersentential discourse function.

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27. (currently amended): A system for synthesizing speech using discourse function

level prosodic features comprising:

an input/output circuit for retrieving input text; and

a processor that determines discourse functions in the input text based on a context aware

theory of discourse analysis using a mapping between basic discourse constituents of the

contextually aware theory of discourse analysis and a plurality of discourse functions; determines

a model of discourse function level prosodic features; and which determines adjusted synthesized

speech output based on the discourse functions, [[and]] the model of discourse function level

prosodic features, and the input text.

28. (original): The system of claim 27, in which the context is at least one of:

semantic, pragmatic, and syntactic context.

29. (currently amended): A carrier wave encoded to transmit a control program,

useable to program a computer to synthesize speech using discourse level prosodic features, to a

device for executing the program, the control program comprising:

instructions for determining a theory of discourse analysis from a plurality of theories of

discourse analysis based on the speech to be synthesized;

instructions for determining input text;

instructions for determining discourse functions in the input text, the discourse functions

being determined based on a mapping between basic discourse constituents of the determined

theory of discourse analysis and a plurality of discourse functions;

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instructions for determining a model of discourse function level prosodic features; and instructions for determining adjusted synthesized speech output based on the discourse functions. [[and]] the model of discourse function level prosodic features, and the input text.

30. (currently amended): Computer readable storage medium comprising: computer readable program code embodied on the computer readable storage medium, the computer readable program code usable to program a computer to synthesize speech using discourse level prosodic features comprising the steps of:

determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized;

determining input text;

determining discourse functions in the input text, the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions;

determining a model of discourse function level prosodic features; and

determining adjusted synthesized speech output based on the discourse functions, [[and]]
the model of discourse function level prosodic features, and the input text.